

## PATENT ABSTRACTS OF JAPAN

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(54) MANUFACTURE OF RARE EARTH MAGNET, AND RARE EARTH MAGNET

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a permanent magnet with excellent magnetic characteristics by restricting the oxidation of a rare earth element.

SOLUTION: This rare earth magnet contains 26.7 to 32wt.% of R (R is 1 kind or 2 kinds or more among rare earth elements containing Y), 0.9 to 2.0wt.% of B, and 0.1 to 3.0wt.% of M (M is at least 1 kind or more of Ga, Al and Cu), the remainder comprises an alloy A with R<sub>2</sub>Fe<sub>14</sub>B containing Fe as main body and an alloy B comprising 35 to 70wt.% of R, 5 to 50wt.% of Co, 0.1 to 3.0wt.% of M with the remainder consisting of Fe, with which the coarse powder of 1 to 30wt.% of B alloy is mixed for the coarse powder of 70 to 99wt.% of alloy A as mixed coarse powder raw material. This pulverized in a inert gas practically having 0% of oxygen, fine powder is directly recovered in a solvent containing mineral oil, synthesized oil, vegetable oil of their mixture in the atmosphere of inert gas and is turned into slurry, the raw material of the slurry is wet formed in a magnetic field, a molded body is desolvent-treated in vacuum and then sintering is

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performed.

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